

Alcohol and atherosclerotic vascular disease risk factors in French men: relationships are linear, J-shaped, and U-shaped.

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BACKGROUND: Although it is well admitted that alcohol displays a U-shaped relationship with atherosclerotic vascular disease, individual relationships between alcohol and atherosclerosis risk factors may be different and have not been determined precisely for several of them. **METHODS:** A cross-sectional study within the SU.VI.MAX French cohort study was performed to assess the curve of potential relationships between alcohol and atherosclerosis risk factors in 2126 healthy men. Mean daily alcohol intake was derived from 37 alcoholic beverages in twelve 24-hr dietary recalls. Logistic models were adjusted for age. **RESULTS:** Apolipoprotein B (ApoB), fasting glucose, body mass index, waist-to-hip ratio, and waist circumference displayed a linear relationship with alcohol. The odds ratios and 95% confidence intervals associated with abnormal values of the markers for the highest quintile of alcohol intake were 1.45 (1.06-1.97) for ApoB, 1.98 (1.40-2.80) for fasting glucose, and 1.74 (1.30-2.34) for body mass index. An inverse J-shaped relationship was assumed for ApoA1 and ApoB/ApoA1 ratio, whereas a U-shaped relationship was observed for serum triglycerides and mixed hyperlipidemia. Only the highest quintile of alcohol was associated with hypertension, although the test for linearity was also significant. No association was observed for Lp(a) or homocysteine. Associations were unmodified by further adjustment for carbohydrates, fiber, lipids, tobacco, or exercise. **CONCLUSIONS:** The aggregate of the disparate alcohol risk factor relationships suggests probable net benefit at 15 to 25 g of alcohol/day.

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